	Application No.	Applicant(s)
Notice of Allowability	09/641,223	MOLESKY ET AL.
	Examiner	Art Unit	
	Srirama Channavajjala	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *7/10/06*.

2. ☐ The allowed claim(s) is/are *1-8,11-16,19-26,29-34,37-44,47-52,55-60,63-68 and 71-76 [re-numbered as: 1-60]*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *9/11/06* .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

DETAILED ACTION

1.   Examiner acknowledges applicant's amendment filed on 7/10/2006.

2.   Claims 1,11,19,29,37,47,55,63,71 have been amended [7/10/2006]

3.   Claims 1,11,19,29,37,47,55,63,71 have been amended [3/3/06].

4.   Claims 79-80 have been added [3/3/06].

5.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/3/2006 has been entered and a non-final Office action mailed on 04/05/2006

6.   Examiner acknowledges applicant's "REPLY" filed on 4/18/2005.

7.   Claims 1,11,19,29,37,47,55,63,71 have been amended. [11/15/2004].

8.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/15/2004 has been entered and a non-final Office action mailed on 12/15/2004.

9.   Examiner acknowledges applicants' amendment filed on 10/6/2003, paper no. # 4.

10.   Claims 55-78 have been added, paper no. # 4.

Drawings

11.   The drawings filed on 10/6/2003, are acceptable for examination purpose.

Interview:

12.   Applicant's Attorney Shaun P. Montana, Reg. No. 54,320 is thanked for the

telephone interview on 11 September 2006. During that telephone interview

Shaun P. Montana granted authorization to **amend claims 1,11,19,29,37,47,55,63,71** ,

cancel claims: 9-10,17-18,27-28,35-36,45-46,53-54,61-62,69-70,77-80 and

amendment to the **specification** page 10, line 10-13.

EXAMINER'S AMENDMENT

13.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

      Authorization for this examiner's amendment was given in a telephone interview

with Shaun P. Montana, Reg. No. 54,320 on 11 September 2006.

The application has been amended as follows:

In the Specification:

Please ***replace page 10*** of the specification with the following amended page, wherein deleted material is indicated by strikethrough:

dereferencing to the splits table and another dereferencing to the distribution table. To apply the adjustments in parallel, a view can be created using the multiple adjustment tables. Applying the adjustments in series may be more difficult because the adjustments should be applied in time order.

Those of ordinary skill in the art will recognize that methods involved in the interval-based adjustment system may be embodied in a computer program product that includes a computer usable medium. For example, such a computer usable medium can include a readable memory device, such as a solid state memory device, a hard drive device, a CD-ROM, a DVD-ROM, or a computer diskette, having computer readable program code segments stored thereon. ~~The computer readable medium can also include a communications or transmission medium, such as a bus or a communications link, either optical, wired, or wireless, having program code segments carried thereon as digital or analog data signals.~~

While this system has been particularly shown and described with references to particular embodiments, it will be understood by those skilled in the art that various changes in form and details may be made without departing from the scope of the invention encompassed by the appended claims.

In the Claims:

1. (Currently amended) In a computer system, a method of applying interval-based adjustments to data in a database, wherein the database is stored within, and accessible via, the computer system, the method comprising:

   storing a plurality of raw data values organized as a series in a first database structure in the computer system;

   for the series of raw data values, storing a plurality of intervals of adjustment data in a second database structure in the computer system, each interval of adjustment data including an adjustment value to be applied to raw data values over a range specified in the series, and wherein the adjustment data includes data for a pending adjustment;

   computing an adjustment value from the data for a pending adjustment in response to retrieval of an adjusted data value from the database; and

   associating the first and second database structures in the computer system so the adjustment value is applied to the series of raw data values in response to retrieval of an adjusted data value from the database in the computer system to provide a user, via the computer system, the adjusted data values corresponding to said raw data values and said adjustment value.

2. (Original) The method of claim 1 further comprising:

   computing the adjustment value for each interval of adjustment data in response to the addition of a subsequent interval of adjustment data.

3. (Original) The method of claim 1 wherein associating comprises mapping the second database structure to the first database structure.

4. (Original) The method of claim 1 wherein the raw data values represent a time series.

5. (Original) The method of claim 4 wherein the time series tracks financial data.

6. (Original) The method of claim 5 wherein the financial data is a currency valuation.

7. (Original) The method of claim 5 wherein the financial data is a securities valuation.

8. (Original) The method of claim 4 wherein associating comprises creating a view of the database that includes the raw data values and the adjustment value.

9. (Canceled)

10. (Canceled)

11. (Currently amended) In a computer system, a method of applying interval-based adjustments to data in a database, wherein the database is stored within, and accessible via, the computer system, the method, comprising:

   storing a plurality of raw data values organized as a time series in a first database structure in the computer system;

   for the time series, storing a plurality of intervals of time-based adjustment data, in a second database structure in the computer system, each interval of time-based adjustment data including an adjustment value to be applied to raw data values over a specified range in the series, and wherein the adjustment data includes data for a pending adjustment;

   computing an adjustment value from the data for a pending adjustment in response to retrieval of an adjusted data value from the database;

   creating a view of the database in the computer system to include the first and second database structures; and

   in response to a query for adjusted data values, input to the computer system by a user, using the view to apply the adjustment value to the raw data values during retrieval of the raw data from the database in the computer system to provide the user with the adjusted data values corresponding to said raw data values and said adjustment value via the computer system.

12. (Original) The method of claim 11 further comprising computing the adjustment value for each interval of adjustment data in response to the addition of a subsequent interval of adjustment data.

13. (Original) The method of claim 11 wherein creating the view comprises mapping the second database structure to the first database structure.

14. (Original) The method of claim 11 wherein the time series tracks financial data.

15. (Original) The method of claim 14 wherein the financial data is a currency valuation.

16. (Original) The method of claim 14 wherein the financial data is a securities valuation.

17. (Canceled)

18. (Canceled)

19. (Currently amended) A computer system for applying interval-based adjustments to data in a database, comprising:

a first database structure storing, in the computer system, a plurality of raw data values organized as a series;

a second database structure storing, in the computer system, a plurality of intervals of adjustment data for the series of raw data values, each interval of adjustment data including an adjustment value to be applied to raw data values over a specified range in the series, wherein the adjustment data includes data for a pending adjustment;

an adjustment value computed from the data for a pending adjustment in response to retrieval of an adjusted data value from the database; and

an association between the first and second database structures in the computer system so the adjustment value is applied to the series of raw data values in response to retrieval of an adjusted data value from the database in the computer system to provide a user, via the computer system, the adjusted data values corresponding to said raw data values and said adjustment value.

20. (Original) The system of claim 19 further wherein:

the adjustment value for each interval of adjustment data is computed in response to the addition of a subsequent interval of adjustment data.

21. (Original) The system of claim 19 wherein the association comprises a map structure mapping the second database structure to the first database structure.

22. (Original) The system of claim 19 wherein the raw data values represent a time series.

23. (Original) The system of claim 22 wherein the time series tracks financial data.

24. (Original) The system of claim 23 wherein the financial data is a currency valuation.

25. (Original) The system of claim 23 wherein the financial data is a securities valuation.

26. (Original) The system of claim 22 wherein the association comprises a view of the database that includes the raw data values and the adjustment value.

27. (Canceled)

28. (Canceled)

29. (Currently amended) A computer system for applying interval-based adjustments to data in a database, comprising:

a first database structure storing, in the computer system, a plurality of raw data values organized as a time series;

a second database structure storing, in the computer system, a plurality of intervals of time-based adjustment data for the time series, each interval of time-based adjustment data including an adjustment value to be applied to raw data values over a specified range in the series, wherein the adjustment data includes data for a pending adjustment;

a view of the database including the first and second database structures;

an adjustment value computed from the data for a pending adjustment in response to retrieval of an adjusted data value from the database; and

in response to a query for adjusted data values, input to the computer system by a user, using the view to apply the adjustment value to the raw data values during retrieval of the raw data from the database in the computer system to provide the user with the adjusted data values corresponding to said raw data values and said adjustment value via the computer system.

30. (Original) The system of claim 29 wherein the adjustment value for each interval of adjustment data is computed in response to the addition of a subsequent interval of adjustment data.

31. (Original) The system of claim 29 wherein the view comprises a map structure mapping the second database structure to the first database structure.

32. (Original) The system of claim 29 wherein the time series tracks financial data.

33. (Original) The system of claim 32 wherein the financial data is a currency valuation.

34. (Original) The system of claim 32 wherein the financial data is a securities valuation.

35. (Canceled)

36. (Canceled)

37. (Currently amended) A computer system including an article of manufacture, the article of manufacture comprising a computer-readable medium including computer instructions encoded on the medium, the instructions causing the computer system to apply interval-based adjustments to data in a database, the database stored within, and accessible via, the computer system, the article comprising instructions for:

storing a plurality of raw data values organized as a series in a first database structure in the computer system;

storing a plurality of intervals of adjustment data in a second database structure in the computer system for the series of raw data values, each interval of adjustment data including an adjustment value to be applied to raw data values over a specified range in the series, wherein the adjustment data includes data for a pending adjustment;

computing an adjustment value from the data for a pending adjustment in response to retrieval of an adjusted data value from the database; and

associating the first and second database structures in the computer system so the adjustment value is applied to the series of raw data values in response to retrieval of an adjusted data value from the database in the computer system to provide a user, via the computer system, the adjusted data values corresponding to said raw data values and said adjustment value.

38. (Original) The article of claim 37 further comprising instructions for:

computing the adjustment value for each interval of adjustment data in response to the addition of a subsequent interval of adjustment data.

39. (Original) The article of claim 37 wherein associating comprises mapping the second database structure to the first database structure.

40. (Original) The article of claim 37 wherein the raw data values represent a time series.

41. (Original) The article of claim 40 wherein the time series tracks financial data.

42. (Original) The article of claim 41 wherein the financial data is a currency valuation.

43. (Original) The article of claim 41 wherein the financial data is a securities valuation.

44. (Original) The article of claim 40 wherein associating comprises creating a view of the database that includes the raw data values and the adjustment value.

45. (Canceled)

46. (Canceled)

47. (Currently amended) A computer system including an article of manufacture, the article of manufacture comprising a computer-readable medium including computer instructions encoded on the medium, the instructions causing the computer system to apply interval-based adjustments to data in a database, the database stored within, and accessible via, the computer system, the article comprising instructions for:

    storing a plurality of raw data values organized as a time series in a first database structure in the computer system;

    storing a plurality of intervals of time-based adjustment data in a second database structure in the computer system for the time series, each interval of time-based adjustment data including an adjustment value to be applied to raw data values over

a specified range in the series, wherein the adjustment data includes data for a
pending adjustment;

creating a view of the database in the computer system to include the first and
second database structures;

computing an adjustment value from the data for a pending adjustment in response
to retrieval of an adjusted data value from the database; and

in response to a query for adjusted data values, input to the computer system by a
user, using the view to apply the adjustment value to the raw data values during
retrieval of the raw data from the database in the computer system to provide the
user with the adjusted data values corresponding to said raw data values and said
adjustment value via the computer system.

48. (Original) The article of claim 47 further comprising instructions for computing the
adjustment value for each interval of adjustment data in response to the addition of a
subsequent interval of adjustment data.

49. (Original) The article of claim 47 wherein creating the view comprises mapping the
second database structure to the first database structure.

50. (Original) The article of claim 47 wherein the time series tracks financial data.

51. (Original) The article of claim 50 wherein the financial data is a currency valuation.

52. (Original) The article of claim 50 wherein the financial data is a securities valuation.

53. (Canceled)

54. (Canceled)

55. (Currently amended) In a computer system, a method of applying interval-based adjustments to data in a database, comprising:

storing a plurality of raw data values organized as a time series in a first database structure in the computer system;

for the time series, storing a plurality of intervals of time-based adjustment data in a second database structure in the computer system, each interval of time-based adjustment data including an adjustment value to be applied to raw data values over a specified range in the series, the adjustment value for each interval reflecting adjustment values for subsequent intervals, wherein the adjustment data includes data for a pending adjustment;

creating a view of the database in the computer system to include the first and second database structures;

computing an adjustment value from the data for a pending adjustment in response to retrieval of an adjusted data value from the database; and

in response to a query for adjusted data values, input to the computer system by a user, using the view to apply the adjustment value to the raw data values during retrieval of the raw data from the database in the computer system to provide the user with the adjusted data values corresponding to said raw data values and said adjustment value via the computer system.

56. (Previously Presented) The method of claim 55 further comprising computing the adjustment value for each interval of adjustment data in response to the addition of a subsequent interval of adjustment data.

57. (Previously Presented) The method of claim 55 wherein creating the view comprises mapping the second database structure to the first database structure.

58. (Previously Presented) The method of claim 55 wherein the time series tracks financial data.

59. (Previously Presented) The method of claim 58 wherein the financial data is a currency valuation.

60. (Previously Presented) The method of claim 58 wherein the financial data is a securities valuation.

61. (Canceled)

62. (Canceled)

63. (Currently amended) A computer system for applying interval-based adjustments to data in a database, comprising:

a first database structure storing, in the computer system, a plurality of raw data values organized as a time series;

a second database structure storing, in the computer system, a plurality of intervals of time-based adjustment data for the time series, each interval of time-based adjustment data including an adjustment value to be applied to raw data values over a specified range in the series, the adjustment value for each interval reflecting adjustment values for subsequent intervals, wherein the adjustment data includes data for a pending adjustment;

a view of the database including the first and second database structures;

an adjustment value computed from the data for a pending adjustment in response to retrieval of an adjusted data value from the database; and

in response to a query for adjusted data values, input to the computer system by a user, using the view to apply the adjustment value to the raw data values during retrieval of the raw data from the database in the computer system to provide the user with the adjusted data values corresponding to said raw data values and said adjustment value via the computer system.

64. (Previously Presented) The system of claim 63 wherein the adjustment value for each interval of adjustment data is computed in response to the addition of a subsequent interval of adjustment data.

65. (Previously Presented) The system of claim 63 wherein the view comprises a map structure mapping the second database structure to the first database structure.

66. (Previously Presented) The system of claim 63 wherein the time series tracks financial data.

67. (Previously Presented) The system of claim 66 wherein the financial data is a currency valuation.

68. (Previously Presented) The system of claim 66 wherein the financial data is a securities valuation.

69. (Canceled)

70. (Canceled)

71. (Currently amended) A computer system including an article of manufacture, the article of manufacture comprising a computer-readable medium including computer instructions encoded on the medium, the instructions causing the computer system to apply interval-based adjustments to data in a database, the database stored within, and accessible via, the computer system, the article comprising instructions for:

storing a plurality of raw data values organized as a time series in a first database structure in the computer system;

storing a plurality of intervals of time-based adjustment data in a second database structure in the computer system for the time series, each interval of time-

based adjustment data including an adjustment value to be applied to raw data values over a specified range in the series, the adjustment value for each interval reflecting adjustment values for subsequent intervals, wherein the adjustment data includes data for a pending adjustment;

    creating ~~reating~~ a view of the database in the computer system to include the first and second database structures;

    computing an adjustment value from the data for a pending adjustment in response to retrieval of an adjusted data value from the database; and

    in response to a query for adjusted data values, input to the computer system by a user, using the view to apply the adjustment value to the raw data values during retrieval of the raw data from the database in the computer system to provide the user with the adjusted data values corresponding to said raw data values and said adjustment value via the computer system.

72. (Previously presented) The article of claim 71 further comprising instructions for computing the adjustment value for each interval of adjustment data in response to the addition of a subsequent interval of adjustment data.

73. (Previously presented) The article of claim 71 wherein creating the view comprises mapping the second database structure to the first database structure.

74. (Previously presented) The article of claim 71 wherein the time series tracks financial data.

75. (Previously presented) The article of claim 74 wherein the financial data is a currency valuation.

76. (Previously presented) The article of claim 74 wherein the financial data is a securities valuation.

77. (Canceled)

78. (Canceled)

79. (Canceled)

80. (Canceled)

In the Title:

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Pursuant to MPEP 606.01 the **Title** is changed to read:

--- *INTERVAL-BASED ADJUSTMENT DATA INCLUDES COMPUTING AN ADJUSTMENT VALUE FROM THE DATA FOR A PENDING ADJUSTMENT IN RESPONSE TO RETRIEVAL OF AN ADJUSTED DATA VALUE FROM A DATABASE* --

Reasons for allowance

Claims 1-8,11-16,19-26,29-34,37-44,47-52,55-60,63-68,71-76 are allowed

The following is an examiner's statement of reasons for indication of

allowable subject matter: The prior art of record does not disclose, make

obvious, or otherwise suggest the structure of the applicant's applying interval-based

adjustments to data in a database, wherein the database is stored within, and

accessible via, the computer system "wherein the adjustment data includes data for a

pending adjustment;

computing an adjustment value from the data for a pending adjustment in

response to retrieval of an adjusted data value from the database" in claim 1, 11,19,29,

37, 47, 55,63,71.

These features, together with the other limitations of the independent claims are

novel and non-obvious over the prior art of record.. The dependent claims 2-8,12-16,20-

26,30-34,38-44,48-52,56-60,64-68,72-76 being definite, enabled by the specification,

and further limiting to the independent claims are also allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam, Hosain, T, can be reached on (571) 272-3978. The fax phone numbers for the organization where the application or proceeding is assigned is 571-273-8300 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

sc
Patent Examiner.
September 11, 2006.   SRIRAMA CHANNAVAJJALA
                           PRIMARY EXAMINER